

2W DC-DC Converter P2V-Series

- Wide 2:1 input range
- Up to 3500 V_{DC} isolation
- MTBF >1.5 MHours
- Continuous short circuit protection
- Low profile metal package available
- Mobile / battery driven applications, Distributed power networks, Data communications equipments, Telecommunication instruments, Process / machine control equipments



Model selection guide

Typ	Input nominal voltage [V _{DC}]	Output voltage [V _{DC}]	Output current [mA]	Efficiency typ. [%]
Single output				
P2V1205S2	9...18	5.0	400	75
P2V1209S2	9...18	9.0	223	78
P2V1212S2	9...18	12.0	167	78
P2V1215S2	9...18	15.0	134	78
P2V1224S2	9...18	24.0	84	79
P2V2405S2	18...36	5.0	400	78
P2V2409S2	18...36	9.0	223	80
P2V2412S2	18...36	12.0	167	79
P2V2415S2	18...36	15.0	134	78
P2V2424S2	18...36	24.0	84	80
P2V4805S2	36...72	5.0	400	75
P2V4809S2	36...72	9.0	223	78
P2V4812S2	36...72	12.0	167	79
P2V4815S2	36...72	15.0	134	80
P2V4824S2	36...72	24.0	84	80
Dual output				
P2V1205D2	9...18	±5.0	±200	74
P2V1209D2	9...18	±9.0	±112	74
P2V1212D2	9...18	±12.0	±83	76
P2V1215D2	9...18	±15.0	±67	77
P2V1224D2	9...18	±24.0	±42	76
P2V2405D2	18...36	±5.0	±200	75
P2V2409D2	18...36	±9.0	±112	75
P2V2412D2	18...36	±12.0	±83	79
P2V2415D2	18...36	±15.0	±67	79
P2V2424D2	18...36	±24.0	±42	78
P2V4805D2	36...72	±5.0	±200	74
P2V4809D2	36...72	±9.0	±112	75
P2V4812D2	36...72	±12.0	±83	78
P2V4815D2	36...72	±15.0	±67	78
P2V4824D2	36...72	±24.0	±42	79

The output voltage range reach from 3.3V to 24V
 Suffix: "H" for 3.5kV isolation voltage

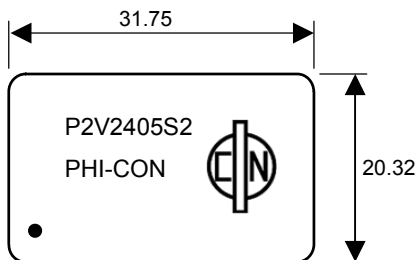
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Specifications

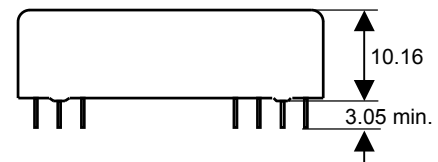
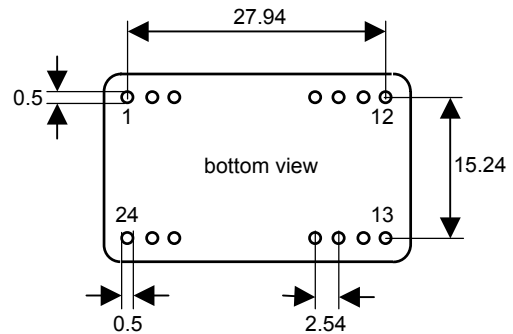
Input	
Voltage range	12 V _{DC} , 9...18 V _{DC} 24 V _{DC} , 18...39 V _{DC} 48 V _{DC} , 36...72 V _{DC}
Filter	Pi Network
Isolation:	
Rated voltage	1500 V _{DC} , Standard 3500 V _{DC} , Suffix "H"
Resistance	10 ⁹ Ω
Capacitance	390 pF, typ.
Output	
Voltage accuracy	± 1%, max.
Voltage balance (dual outputs)	± 1%
Ripple and noise (at 20 MHz BW)	60 mVp-p, max.
Short circuit protection	Continuous
Short circuit restart	Automatic
Line voltage regulation	± 0.5%, max.
Load voltage regulation	± 0.5%, max.
Temperature coefficient	± 0.02% / °C

General	
Efficiency	75% to 80%
Switching frequency	260 kHz, typ.
Environmental	
Operating temperatur (ambient)	-40 °C to +85 °C
Case temperature	100 °C max.
Storage temperature	-40 °C to +125 °C
Derating	None required
Humidity	Up to 90%, non-condensing
Cooling	Free-air convection
Physical	
Dimensions	31.75x20.32x10.16 mm
Weight	19 g metal, standard, 17 g plastic suffix "P"
Case material	Standard, nickel-coated copper metal

Dimensions



All dimensions in mm
Tolerance ±0.25 mm



Pin connections

Pin	Standard		3.5 kV _{DC}	
	Single	Dual	Single	Dual
2	-V Input	-V Input	-V Input	-V Input
3	-V Input	-V Input	-V Input	-V Input
9	Omitted	Common	Omitted	Common
11	N.C.	-V Output	N.C.	-V Output
14	+V Output	+V Output	+V Output	+V Output
16	-V Output	Common	-V Output	Common
22	+V Input	+V Input	+V Input	+V Input
23	+V Input	+V Input	+V Input	+V Input

Life Support Policy: HY-LINE does not authorize the use of any of its products for use in life support devices or systems without the express written approval of an officer of the Company. Life support systems are devices which support or sustain life, and whose failure to perform, when properly used in accordance with instructions for use provided in the labeling, can be reasonably expected to result in significant injury to the user.
Rev: 5.05 f